Stranded Gas Hearings

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State Revenue Issues of Gasline Expansion

Larry Persily, Special Assistant to the Commissioner, Dept. of Revenue, July 28, 2004.

MR. LARRY PERSILY, Special Assistant to the Commissioner, Department of Revenue (DOR), said he wasn't at the meeting when he got volunteered for this subject. His comments are not meant to depress anyone or contradict earlier comments.

All things being equal, collecting state revenues sooner is better than getting them later. You never know what the future will bring and, if you need the cash, you might say that a royalty or a tax dollar in hand is worth more than two in the ground – especially for a state that is so dependent on each year's revenues to pay its bills.

But, on the other hand – the one without the dollar in its grip – Alaska needs the gasline money even more so in the future, if declining oil and gas production continues to cut into our state revenues. A steady, even longer-term, stream of cash to the treasury may be better than producing more gas in the early years and then less gas later on.

Just as the Alaska Oil and Gas Conservation Commission (AOGCC) is charged with managing reservoirs for optimal, long-term production, shouldn't we also consider the optimal term for maintaining the gasline revenue stream? That's something to consider, since at this time no one really knows how much gas is economically recoverable or if and when companies would be willing to invest in new exploration and production to prove up those reserves and put them in the line.

The proposal on most tables is for a gasline that would move 4.5 BCF per day. With the current proven reserves from Prudhoe Bay and Point Thompson, that's about 34 TCF. A full 4.5 BCF a day line would run out of gas in 21 years. The truth is it wouldn't run at full speed and then hit empty one day late in the 21st year. The decline would start soon after the half-way point after which the decreased flow would be steep. The major North Slope producers testified this past legislative session that the gas flow from 34 TCF would start to decline after about 12 to 14 years, leaving plenty of available capacity for new supplies to move down the pipe.

Looking at projections at Prudhoe Bay and Point Thompson, a 4.5 BCF project would be down to 4 BCF by year 15, dropping quickly to under 3 BCF by year 18 without new discoveries to feed the line.

And, yes, there are some additional known reserves on the North Slope, but not nearly enough to keep a 4.5 BCF line full for 30 years or more, which is what we've already gotten out of the trans-Alaska oil pipeline.

It would take closer to 60 TCF of reserves to keep a 4.5 BCF gas pipeline full for 30 years, after which the flow would turn sharply lower. Consider that explorers would need to find and develop those new fields just to keep the line full, much less worry about expansion.

Notwithstanding all the estimates of how much gas might be out there, 30 additional TCF is a lot of gas to find. By comparison, that is more than three times as much gas as has been discovered in the Mackenzie Delta. At $4 an MCF, that is $120 billion worth of gas.

Assuming explorers find that 30 TCF of gas or more on the North Slope and in the Foothills, does it make sense to expand the line to move that gas to market as soon as the engineers and welders can do the work to boost the pipe's capacity? Or is it better to pace ourselves for the long term, thinking of those additional reserves to extend the life of the line rather than expand its short-term flow? Should the market decide if and when more gas is needed?

We should keep our eyes on what's important, which is getting the gasline built sooner rather than later and do whatever we can to ensure that the gas flows for as many years as possible. That seems more important than deliberating expansion requirements now, especially if it affects the commerciality of the line.

It is natural to assume that as soon as the line is built, there will be an incentive to explore. No doubt explorers will find more gas on the Slope. The state's interest is to encourage exploration to always keep that line as full as possible. More gas in the line means lower tariffs, which means more royalty and tax revenue to the state from a higher wellhead value and more years of tax and royalty checks. However, too much expansion early on could lead to lower utilization of the line later on, meaning higher tariffs and less revenue to the state in those years. The pipe should be sized for the long-term efficiency, not short-term gains.

It also is natural to assume that some of the major North Slope producers might be motivated to explore, just as independents will want to find gas once there is a line to carry it to market. Therefore, the state should be very careful about creating any mechanisms to direct expansion capacity to any parties in a discriminating fashion – while being just as careful to ensure that the independents are treated fairly, with full and realistic opportunities to access the line.

But, in impersonal dollars and cents, as far as state revenue is concerned, a dollar from a major producer is as good as one from a smaller independent player as long as the majors remember where we are.

Having said that, I want to stress that competition at lease sales is good for the state and, for that reason, the state should take all reasonable steps to encourage and promote independents on the North Slope. It's clear that the independents will play an increasingly larger role in the state's oil and gas industry and without access to move their production to market they and the state would lose. That is unacceptable.

But getting back to the issue of gasline expansion, we believe companies' willingness to commit exploration and production dollars and the market's need for more gas should control expansion of the line. Let's be careful not to let any dreams of expansion jeopardize what we really want, which is the gasline.

The line's tariff structure could also affect the timing of any expansion. By adopting different methods for calculating the tariff, the recovery of capital costs over time, gasline charges can be decreasing or levelized. Each has its own advantages and disadvantage for different players and different times. There are good reasons for each and the state needs to think carefully about the options and the effect.

Through a decreasing tariff, where it starts high and decreases each year as depreciation reduces the line's cost basis, the project's equity investors recover their money sooner and, over time, the tariffs decrease as there is less cost recovery built into the transportation charge. Lower tariffs could encourage independent exploration, but not until those years of the higher initial tariff have passed. Also, under a decreasing tariff the state's take is less in the early years because of the higher tariff as a deduction against royalties and production taxes. That's a trade-off for the lower tariff and higher state revenues in later years.

A declining tariff also lowers the owners' production tax bills early-on assuming the producers are the owners, which back-end loads the fiscal system, a goal of the Stranded Gas Development Act. Because of the time-value of money, this could help the economics of building the project. The owners would pay less taxes early on, because of the higher tariffs, but would pay heavier taxes as the tariff drops in the later years. So, you could say a decreasing tariff with heavier upfront depreciation might be good for a producer-owned line and could be good for new

producers if they come on line in the project's later years, but bad for those independents if they want access in the earlier years.

If a third party owns the pipeline, a decreasing tariff would put a burden on the majors as the early gas pays higher tariffs to pay off the pipeline. This could hurt their economics.

A levelized tariff, which is the other option, spreads out the burden of paying off the pipeline equitably over time among all parties. Regardless of the project owners' tax depreciation schedule, the cost recovery is levelized for the life of the project, meaning the tariff is the same in year 1 as in year 20. This would eliminate any burden on early producers to pay a higher tariff, but also would mean the later producers would not see any tariff benefit from a more heavily depreciated line.

Independent producers that come on board at any time in a levelized tariff project would pay the same as the majors. This would be better than a decreasing tariff for independents that feed gas into the line in the earlier years of the project.

And, as you heard at last months' hearing, there also is the issue of rolled-in or incremental tariffs for any expansion capacity. What's important to remember is that the entire issue of tariff structure may be subject to negotiations under a Stranded Gas Development Act contract where the state can negotiate fair access for all parties and help ensure that the line stays full for a long time.

SENATOR BUNDE asked if he recommended one of the three options he just presented on tariffs.

MR. PERSILY said he was sure tariffs were being discussed in Stranded Gas Act negotiations and he had only been on the job for five weeks and didn't want to pronounce what the state's recommendation is.

CO-CHAIR OGAN said one of his concerns about revenue is the effect of the draw down on gas on oil revenues. Currently the AOGCC can regulate the waste of hydrocarbons, but not the economic waste of drawing down a large amount of gas in units that would affect oil production and, ultimately, revenues.

MR. PERSILY said he knows that the AOGCC is looking at that.